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REPORT NO. 1

Cotton Fiber and Processing Test Results

CROP of

1972



**Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 August 18, 1972**

This is the first of a series of reports of fiber and processing test results from the 1972 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1971", April 1972. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1972

Procedures

The Cotton Division, AMS, has made fiber and processing tests each year on the principal varieties of cotton grown by selected cotton improvement groups in the United States since the 1946 crop. Results of these tests have been published in periodic reports throughout the harvesting season 1/ and in a summary report at the end of each crop year.

Cotton fiber and processing test results will be published this season for approximately 150 production areas in the Cotton Belt of the United States. Individual gins are selected in each classing office territory to represent the major varieties produced in commercial quantities. Each selected gin represents an area producing from 5,000 to 150,000 bales annually, and selections are made on a varietal basis. Where possible, no gin selection was made where less than 70 percent of a given variety was planted in the area. However, where commercial production warranted and no gin location with 70 percent of the variety was available, classing offices were allowed to select lots from individual farms to represent the variety. Pure variety gins were selected when available, regardless of production providing the variety was being commercially grown. Test lots are collected at approximately 3-week intervals. Usually 3 to 5 samplings are received from each gin during the harvest season.

Each spinning test lot consists of several classing samples of commercially grown cotton of the same grade and staple length from bales grown in the selected area and harvested at essentially the same time. These lots represent the modal quality of the cotton from the gin at the time the samples are classed. Qualities other than those reported are also available in each area due to normal variations in weather and soil condition, cultural, harvesting and ginning practices.

Fiber and processing test results for the 1972 crop are reported in four staple length groups similar to those used in recent years. The test lots to be included in each group are selected on the basis of normal staple length of the varieties.

1/ Cotton Fiber and Processing Test Results, Crop of 1971; Report No. 1, dated August 20, 1971, through Report No. 13, dated February 4, 1972.

<u>Type test and group number</u>	<u>Staple length group</u>	<u>Carding rate in lbs/hr.</u>	<u>Yarn numbers spun</u>	<u>Twist multiplier used</u>
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Carded only:

I	Short	12-1/2	8s and 22s	4.40
II	Medium	9-1/2	22s and 50s	4.00

Carded and combed:

III	Long	6-1/2	22s and 50s	3.80
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Combed only:

IV	Extra Long	4-1/2	50s and 80s	3.60
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The fiber and processing tests on this season's cotton will be performed by the same procedures used for the 1971 cottons. 2/

Test Results

Based on a very limited number of medium staple samples from the South Texas area, cottons are finer, weaker and show more picker and card waste than through the same period a year ago. Yarns spun from these samples have about the same strength with lower yarn appearance and more imperfections.

2/ For a complete description of tests and test procedure see, Summary of Cotton Fiber and Processing Test Results, Crop of 1971, dated April 1972.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through August 11, 1972 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections		
				Inches			Pct.	Rdg.				Mpsi	G/tex
		No.	Yarn No.										
22s Carded Yarn													
Medium Staple:													
Southwest:													
	6	1.05	46	4.6	88	22	2.8	5.2	102	122	17	60	
	3	1.06	45	3.9	80	21	2.9	5.8	102	116	24	62	

Significant difference 2/

0.02 2 0.2 2 1 0.5 0.5 4(22s) 5 2 3

1/ Based on a limited number of samples of modal quality2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct's		Spin. Potential	
No	Grade	Stple	32s	2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		27 tx	12 tx	22s or 27 tx	50s or 12 tx	27 tx	12 tx	22s or 27 tx	50s or 12 tx		27 tx
Name & Code				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTHWEST AREA																							
SOUTH TEXAS																							
HARLINGEN																							
1	SLM		41	34	1.07	47	4.2	84	22	5.4	2	3	95 PERCENT	41	109	6.5	5.4	120	100	18	14	65	
STONEVILLE 7A																							
SAN JUAN																							
TPSA 1633																							
1	SLM LT SP		42	34	1.05	45	3.9	77	20	5.2	3	4	100 PERCENT *	36	98	6.4	5.0	120	100	22	18	62	
2	SLM LT SP		42	34	1.07	44	3.6	80	21	4.9	3	4		36	99	6.3	5.0	110	90	33	23	67	

* 100 percent selected for tests, less than 100 percent in the area.